

REMARKS

Upon entry of the Amendment, Claims 1 and 3-27 will be pending in the application.

Claim 1 is amended to recite “Ar₂ represents an arylene group or divalent heterocyclic compound group, but the group is not represented by any of formulae (2) to (7) wherein X₁, X₃, X₅, X₇ or X₉ represents a group selected from -CR₂₁=CR₂₂-, -CR₂₃=N-, -N=CR₂₄-, -O-CO-, -CR₂₅R₂₆-, -CO-, -O-, -S-, -Se-, -NR₂₇-, and -SiR₂₈R₂₉-, and X₂, X₄, X₆, X₈ or X₁₀ represents a group selected from -CR₃₀= and -N=; Ar₂ may have one or more substituents; when Ar₂ has a plurality of substituents, they may be the same or different; R₃₆ and R₃₇ each independently represent a group selected from a hydrogen atom, alkyl groups, aryl groups, monovalent heterocyclic compound groups and a cyano group; and n represents 0 or 1.” Further Claim 1 is amended preceding formula (8) by inserting “R₂₂ and” after “to”.

Claim 2 is canceled.

Claims 3 and 5 are clarified to recite “at least one of R₁' and R₂' is an alkoxyphenyl group”.

Claims 3-7 dependent upon Claim 2 are amended to remove such dependency.

Claim 18 is amended to depend on dependent Claim 3.

No new matter is added.

Entry of the Amendment is respectfully requested along with reconsideration and review of the claims on the merits.

Response to Claim Rejections - 35 U.S.C. § 112

A. Claims 1-3 and 6-27 are rejected under 37 C.F.R. § 112, first paragraph, as failing to comply with the written description requirement, for the reasons given in the Office Action.

B. Claims 1-27 are rejected under 37 C.F.R. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention, for the reasons given in the Office Action.

Applicants respond as follows.

As previously noted, Claim 1 is amended so that Ar₂ is not broader than originally disclosed. Further Claim 1 is amended preceding formula (8) by inserting "R₂₂ and" after "to", as suggested by the Examiner.

In Claims 3 and 5, R₁' and R₂' are clarified to recite "at least one of R₁' and R₂' is an alkoxyphenyl group", as suggested by the Examiner.

As previously noted, Claim 2 is canceled. Claims 3-7 dependent upon Claim 2 are amended to remove such dependency. And Claims 18-27 now eventually depend on independent Claim 1 through dependent Claim 3.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, first paragraph.

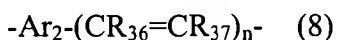
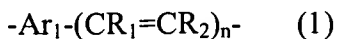
Response to Claim Rejections - 35 U.S.C. § 103

A. Claims 1-27 are rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over U.S. Patent No. 6,361,887 B1 to Shi et al for reasons of record.

B. Claims 1-27 are rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over EP 1 043 382 A2 to Noguchi et al for reasons of record.

Applicants respond as follows.

The present invention is directed to a polymeric fluorescent substance that exhibits fluorescence in the solid state. This polymeric substance comprises repeating units of formula (1) and formula (8).

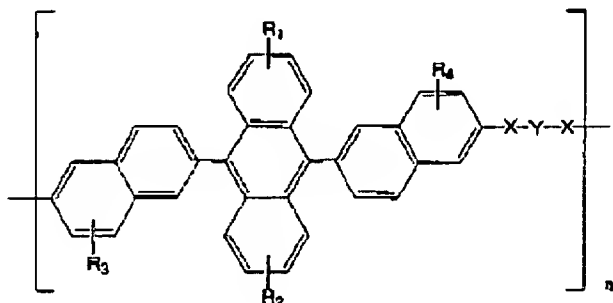


Ar_1 is a divalent group represented by any one of the formulae (2) to (7). *See* Claim 1. Each of formulae (2) to (7) have at least one alkoxyphenyl substitution.

Applicants respectfully submit that the cited prior art fails to disclose or suggest the present invention.

§ 103 rejection based on Shi et al. (U.S. Patent No. 6,361,887)

Shi discloses polymeric luminescent materials which include 9,10-di-(2-naphthyl)anthracene based polymers of the formula below.



In the polymer, Shi uses a specific primary wide energy bandgap chromophor of 9,10-di-(2-naphthyl)anthracene.

On the other hand, in the present invention, a naphthalene unit represented by formula (4) in Claim 1 is used as a monomeric unit itself and it is not necessary to be used together with an anthracene group, and the naphthalene unit is usually randomly distributed in the polymer main chain.

Furthermore, Shi does not concretely teach the alkoxyaryl substituent on the naphthyl group.

Accordingly, Applicants respectfully request that the § 103 rejection based on Shi be reconsidered and withdrawn.

§ 103 rejection based on Noguchi et al.(EP 1043382A2)

Noguchi discloses various naphthylene groups but does not disclose those having an alkoxyaryl substituent.

The favorable effect of using naphthylene groups having alkoxyaryl substituent is shown in Examples 3 to 6, 8, 9, 12, and 15 to 20 of the present specification.

Accordingly, Applicants respectfully request that the § 103 rejection based on Noguchi be reconsidered and withdrawn.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 09/995,814

Atty. Docket No. Q67430

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

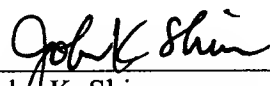
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